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STATE AUTOMATION SYSTEMS STUDY

MICHIGAN STATE REPORT

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FINAL

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THE ORKAND CORPORATION

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MICHIGAN STATE REPORT
Site Visit April 21 - 23, 1993

STATE PROFILE

System Name: Client Information System (CIS)
Automated Social Services Information and Support System (ASSIST)

Start Date: CIS - unavailable
ASSIST - 1985

Completion Date: CIS - 1977
ASSIST - 1995

Contractor: Unisys, Inc. (ASSIST)

Transfer From: Connecticut (ASSIST)

Cost (ASSIST):

Actual: $9,039,840 (planning costs through end of FY 1992)

Projected: $24,433,689 (1985 APD estimate)
$94,461,034 (total including costs through FY 1992)
$85,421,194 (1992 APD - additional estimated costs)

FSP Share: $ 6,530,000 (1985 APD estimate)
$ 3,153,657 (planning costs through end of FY 1992)
$32,057,718 (1992 APD - additional estimated costs)

FSP %: 34.89% (planning costs through end of FY 1992)
37.53% (additional estimated costs)

Number of Users: 7,500 (est. ASSIST)

Basic Architecture (ASSIST):

Mainframe: Honeywell Bull DPS 90/93
Workstations: Unisys B20 and B30 intelligent workstations
Telecom Network: T1 backbone

System Profile:

Programs: Food Stamp, Aid to Families with Dependent Children, *Medicaid*, other State Programs

1.0 STATE OPERATING ENVIRONMENT

The Michigan Department of Social Services (DSS) is the State agency responsible for administering the Food Stamp Program (FSP) and other assistance programs in the State. DSS is comprised of the following organizational units:

- Medical Services Administration
- Family Services Administration
- Financial and Internal Control Administration
- Audits, Investigations & Licensing Administration
- Management Resources and Information Systems Administration

Within the Family Services Administration (FSA), the Office of Financial Assistance Programs (OFAP) is charged with the administration of Energy, Housing and Emergency Programs; Medical Programs; and Payment Programs. Payment Programs is the area responsible for the supervision of Food Stamp Program operations in Michigan.

Systems support for the existing systems and development efforts is provided by several groups within DSS. The Office of Systems and Technical Services, which is part of FSA, provides support in three major areas: technical, program, and systems. The Bureau of Information Systems (BuIS), within the Management Resources and Information Systems Administration (MRISA), provides overall technical support to the Department. Michigan currently is developing the Automated Social Services Information and Support System (ASSIST). Responsibility for the ASSIST project falls under the Office of Advanced Technology Systems within MRISA.

Michigan's population in 1990 was 9,328,784. Approximately 9.9 percent of the population received Food Stamp Program benefits.

The unemployment rate in Michigan decreased from 1982 to 1989 and increased in 1990 and 1991. Between 1982 and 1989, the State's unemployment level decreased from 15.5 percent to 7.1 percent. The unemployment level increased to 7.5 percent in 1990 and 9.2 percent in 1991.

The October 1992 report, The Fiscal Survey of States, provides the following information compiled by the National Association of State Budget Officers:

- Michigan's nominal expenditure growth for Fiscal Year (FY) 1993 was 5 percent to 9.9 percent; the national average for expenditure growth was 2.4 percent.

- Michigan reduced the 1992 State budget by $149.2 million after it was approved.

- State government employment levels in Michigan's decreased by 5.09 percent. This change was larger than the national average 0.60 percent decrease in state government employment.

- Michigan implemented changes that decreased FY 1993 revenues by $20.0 million. Corporate income taxes and other taxes were reduced.

- The regional outlook for the Great Lakes states indicated modest economic growth. The region's weighted unemployment rate of 7.0 percent was lower than the national average of 7.8 percent; however, the region's per capita growth in personal income (2.1 percent) was weaker than the national average growth of 2.4 percent.

2.0 FOOD STAMP PROGRAM OPERATIONS

The Food Stamp Program department in the Payment Programs area of the FSA oversees FSP operations in Michigan. The FSP department is staffed by six people, including one manager. At the local level, FSP is administered through 130 direct services offices located throughout the State's 83 counties.

2.1 Food Stamp Program Participation

The average monthly participation for FSP and other assistance programs is provided below in Table 2.1. Household participation in the Food Stamp Program increased by 12.1 percent between 1988 and 1992, while the number of individuals receiving FSP benefits increased by 13.6 percent. The largest participation increases occurred in the Child Support Enforcement (CSE), Medicaid, and Foster Care Programs. CSE participation increased by 31.2 percent between 1988 and 1992. Medicaid participation increased by 20.0 percent during the same period, and Foster Care participation increased by 19.8 percent between 1988 and 1991. Five year participation increases for the Aid to Families with Dependent Children (AFDC) Program were slight. Individual participation increased by 3.1 percent and household participation increased by 5.0 percent. The number of General Assistance (GA) cases increased by 2.0 percent between 1988 and 1991. Most GA benefit payments in Michigan ended in October 1991.

Table 2.1 Average Monthly Public Assistance Participation

PROGRAM	1992	1991	1990	1989	1988
AFDC					
Cases	225,578	229,631	223,078	212,686	214,933
Individuals	672,092	691,653	670,253	642,716	652,033
Foster Care	N/A	9,181	8,270	7,975	7,666
GA					
Cases	16,976	105,524	102,210	103,619	103,483
Individuals	37,213	133,114	131,312	133,620	133,540
FSP					
Households	407,389	413,276	390,342	365,798	363,358
Individuals	1,003,000	992,000	928,000	876,000	883,000
Medicaid	1,111,513	1,086,385	1,001,012	936,760	926,034
CSE	1,168,799	1,119,198	1,017,141	958,817	891,084

2.2 FSP Benefits Issued Versus FSP Administrative Costs

The ratio of benefits issued to FSP administrative costs improved from 13.0:1 in 1988 to 14.5:1 in 1992.

Michigan's average monthly benefit issuance per household over the last five years, as provided in Table 2.2, has increased.[1]

Table 2.2 FSP Benefits Issued

	1992	1991	1990	1989	1988
Average Monthly Benefit Per Household	$173.94	$164.97	$143.84	$123.14	$117.32

[1] The number of households and benefit amounts use data reported in the FNS *State Activity Reports* for each year.

2.3 FSP Administrative Costs

Michigan's Food Stamp Program Administrative Costs for the past five years are provided in Table 2.3.[2] Total FSP Federal administrative costs increased each year during the period. Average cost per household increased each year except 1991.

Table 2.3 FSP Federal Administrative Costs

	1992	1991	1990	1989	1988
Total FSP Federal Admin. Cost	$58,305,901	$49,407,527	$46,873,778	$40,833,422	$38,887,548
Avg. Federal Admin. Cost Per Household Per Month	$11.99	$10.09	$10.16	$9.36	$9.03

2.4 System Impacts on Program Performance

Areas of Food Stamp Program performance that could potentially be affected by the automated systems that support the Program include:

- Staffing
- Responsiveness to Regulatory Change
- Combined Official Payment Error Rates
- Claims Collection
- Certification/Reviews

2.4.1 Staffing

Michigan staff indicated that there has been a reduction in caseworker staffing levels over the past five years. During the same period, the average monthly caseload per worker increased. State staff believed that the system aided local office staff so that increased caseloads could be accommodated without increasing staffing levels.

Local office staff includes eligibility workers (EWs), EW supervisors, and registration workers. The State does use generic EWs. There are 2,305 registration workers, 918 FSP eligibility workers, 3,688 public assistance (PA) eligibility workers, 124 FSP and 441 PA

[2] The number of households and FSP Federal administrative costs are derived from data reported in the FNS *State Activity Reports* for each year.

EW supervisors, and 56 staff supporting food stamp issuance in the State. The majority of EWs are generic.

2.4.2 Responsiveness to Regulatory Change

As shown in Exhibit A-2.1 in Appendix A, the State experienced difficulty in meeting implementation timeframes for several regulatory changes. "Insufficient lead time" is an often cited reason for why regulatory changes were not implemented on time. However, Michigan did not detail what was meant by "insufficient lead time." Provisions not implemented by the Federally required dates included:

- Code 1.3, excluding, for FSP purposes, resources exempt by PA and Supplemental Security Income (SSI) in a mixed household: staff indicated that the change was implemented late because the State waited for technical corrections before implementing the change.

- Code 1.4, requiring the use of a standard estimate of shelter expense for households with homeless members: staff indicated that Federal notification of the standard amount arrived late.

- Code 2.2, related to combined initial allotments under normal timeframes: staff believed that there was insufficient lead time to make the necessary system changes prior to the mandated implementation date.

- Code 2.3, related to combined initial allotments under expedited timeframes: staff believed that there was insufficient lead time for making system changes.

- Code 3.2, excluding advance earned income tax credit payments: Michigan staff reported that the Federal regulations were issued after the mandated implementation date.

- Code 3.3, increasing dependent care deductions: staff believed that there was insufficient lead time for making system changes.

- Code 3.4, eliminating migrant initial month prorations: Michigan staff believed that this regulation was published in final form in June 1989 although the mandated implementation date was September 1, 1988; furthermore, there was insufficient lead time for policy or system changes to be made.

In addition, State staff indicated that there were several provisions, which were not applicable in Michigan. These regulations included:

- Code 1.1, excluding as income State or local GA payments provided as vendor payments, because Michigan does not have GA vendor payments.

- Code 1.2, excluding an annual school clothing allowance from income, because Michigan does not provide a school clothing allowance.

- Code 4.1, requiring staggered mail issuance over at least 10 days, because Michigan's issuance system already staggered issuance.

Information was not available about the timeliness of implementation for code 3.1, which excludes job stream migrant vendor payments.

2.4.3 Combined Official Payment Error Rate

Michigan's official combined error rate, as indicated in Table 2.4, has fluctuated between 1988 and 1992. Overall, the error rate increased during the five year period.

Table 2.4 Official Combined Error Rate

	1992	1991	1990	1989	1988
Combined Error Rate	9.05	7.37	8.89	7.58	8.33

2.4.4 Claims Collection

Table 2.5 presents claims collection data, including, the dollar value of claims established, the dollar value of claims collected, and the percentage of claims established that were collected. During the 1988 to 1992 period, the dollar value of claims collected increased each year and the value of claims established increased each year except 1989.

Michigan's claims collected as a percentage of claims established fluctuated during the period. The highest percentage occurred in 1989, when the value of claims established was at its lowest level for the five year period. The percentage of claims collected is affected by the total number of claims established, whether the individual is still receiving benefits, the amount of available assets, and other factors.

Table 2.5 Total Claims Established/Collected

	1992	1991	1990	1989	1988
Total Claims Established	$14,673,877	$11,170,851	$9,329,404	$5,246,301	$7,143,722
Total Claims Collected	$4,336,488	$3,474,260	$2,679,491	$2,176,457	$1,753,691
As a % of Total Claims Established	29.6%	31.1%	28.7%	41.5%	24.5%

2.4.5 Certification/Reviews

The Client Information System (CIS), the primary system that supports FSP, was implemented in 1977. Food and Nutrition Service (FNS) staff have reviewed this system, but did not perform an official post-implementation review. CIS also has been reviewed by the Department of Health and Human Services (DHHS); however, the system has not been Family Assistance Management Information System (FAMIS) certified.

3.0 OVERVIEW OF THE SYSTEM

This section provides an overview of the functionality, complexity, and level of integration of Michigan's current systems and discusses some of the current automation issues in the State. CIS is an integrated eligibility determination and benefit issuance system that supports the Food Stamp, AFDC, Medicaid, and State Programs. CIS provides the primary on-line link between field staff and the central database. Besides CIS, two other systems also support the FSP: the Local Office Automation (LOA) System and the Food Stamp Issuance System (FS-ISS). LOA, which became operational in the middle 1980s, resides on Burroughs B-25s, 27s and 28s, rather than the central mainframe. LOA performs budget calculations for eligibility workers and does some administrative and accounting functions for local offices. FS-ISS is a stand-alone issuance system dedicated to the Food Stamp Program.

3.1 System Functionality

Major features of CIS and other Michigan systems are described in this section. Areas addressed include:

- ***Registration.*** Applicants apply for specific assistance programs by completing an application form (DSS-1171). This initial request for assistance requires the

client's name, Social Security number (SSN), address, and date of birth (DOB) of the head of household. A file clearance is performed using these data elements. If the client is known to the system, a case number normally is not assigned at this time. If the client is not known to the system, a case number is assigned during registration. The client is registered for all programs to which he or she applied. Initial data is entered into CIS at registration. The client is provided a list of verification items and documentation that must be provided; however, an interview can be scheduled and eligibility determined prior to the receipt of the documentation by the EW.

- ***Eligibility Determination.*** Under the existing systems, eligibility determination requires some manual activities by the EW. CIS does not automatically determine the need for expedited service. This task is performed at registration or during the intake interview. The system does not support interactive interviewing; data entry is performed from worksheets after the interview. The caseworker determines non-financial eligibility and assistance group composition.

  Both LOA and CIS support eligibility determination. Financial processing is performed through the LOA system. LOA can perform budget calculations for the worker. The system calculates the monthly gross income, net income, utilities, and medical expenses. The worker then verifies these calculations. The LOA system organizes the data for transmission to CIS. If the data is not complete and ready for transmission, it may be saved on LOA; however, the case is not considered to be "on the system" until it has been entered into CIS. Automated links between LOA and CIS exist in all counties and workers can switch easily from one system to the other.

  Michigan used the group composition module from the Ohio system as a model for its system.

- ***Benefit Calculation.*** Benefit calculations are performed through the LOA system. Workers are encouraged to use this system, however its use is not mandatory. The LOA system provides on-line calculator screens and automates the benefit calculation task. Workers verify the system's calculations. Supervisory benefit authorization is required only for new workers.

- ***Benefit Issuance.*** CIS subsystems or separate systems support benefit issuance, and two primary methods are used for FSP issuance: on-line direct access and direct mail. Approximately 85 percent of all Food Stamp Program benefits are issued through the on-line direct access method. Clients receiving benefits through this method are issued magnetic cards. At issuance centers, the cards are inserted into a reader terminal which is on-line to CIS. CIS verifies the benefit issuance and issuance center staff issue the proper amount of food coupons. CIS automatically updates the central issuance files to reflect the benefit issuance. Most issuance centers are operated by private contractors.

With direct mail issuance, local offices mail food coupons to client households. A mail issuance listing produced during month-end batch processing is used to determine which clients are eligible for benefits.

Manual issuance of FSP benefits is performed under some circumstances. One use of manual issuance is for expedited food stamp benefits.

- ***Notices.*** Both CIS and LOA produce client notices. AFDC and food stamp notices are combined in the LOA system. LOA may generate notices for intake and change activities, while CIS generates notices for on-going cases. Notices are used for communicating with clients regarding eligibility determination results, warnings that monthly reports were not received, benefit reductions and increases, and case closure based on recertification information. CIS notices are generated centrally and mailed directly to the client. Workers can add free form text to all types of notices except mass change notices. Notices generated by CIS must be program specific. CIS provides notices for the Food Stamp, AFDC, Medicaid, State Assistance, JOBS, and State Emergency Relief (SER) Programs.

- ***Claims System.*** Michigan operates an Automatic Recoupment System (ARS) that handles both administrative and cash recoupment. ARS tracks cash recoupment through data entered into CIS. Administrative recoupments are processed by the PA/GA Payroll System, which reads CIS files to identify cases subject to such recoupment, deducts the specified amount from the benefit allotment, and notifies ARS of the deducted amount.

  The eligibility worker, LOA, and CIS also are involved in claims processing. The collection method is determined by the EW. The eligibility worker is responsible for entering the amount of overpayment or underpayment into the LOA system, which then calculates the proper recoupment amount. The worker may enter the specific amount to be recouped in CIS. The system tracks the claim's status and automatically creates a collection record once the claim has been established and the case is closed. The system also provides a screen showing the complete collection record.

- ***Computer Matching.*** With the exception of the duplicate participation checks performed during registration and limited on-line access to the Department of Motor Vehicles for asset information, computer matching in Michigan currently is performed in batch mode using tapes. The State performs computer matching against several data sources, including the Benefit Earnings Exchanges System (BEERS), Beneficiary Data Exchange (BENDEX), State Data Exchange (SDX), Social Security Administration (SSA), and Internal Revenue Service (IRS). Only out-of-state earnings reported in BEERS are considered in Michigan's matches against the database. For SSI recipients, SDX reports are generated weekly. IRS data is matched for unearned income during the month of application and three months prior to case redetermination. Other matching sources include: applicant wage matches (twice weekly for applicants), wage matching (quarterly for on-

going cases), and Unemployment Benefits (twice weekly for applicants and monthly for all recipients from the Michigan Employment Security Commission).

Paper reports are used to inform eligibility workers of discrepancies that result from computer matching. Only discrepancies exceeding specified thresholds are reported to workers. EWs are responsible for resolving discrepancies.

State staff expressed the belief that improvements could be made in the computer matching procedures to avoid placing additional burdens on eligibility workers and improve the effectiveness of matching. Michigan is participating in an FNS project designed to develop a more cost effective and meaningful system of computer matching. Project recommendations for changes in the existing matching process included:

- Elimination of the State Wage Information Collection Agency (SWICA) match, for applicants, not the ongoing match.

- Elimination of the wage match for children under 18, and report hits when under 18 and income difference is $1500.

- Reduction in IRS matches.

- ***Alerts.*** The current systems do not provide any on-line alerts. Instead, paper reports are used for reporting items such as recertifications due and computer matching results.

  ASSIST will have a full featured alert capability with on-line displays of due and past-due case activities.

- ***Monthly Reporting.*** The current systems support monthly reporting in several areas. CIS determines cases subject to monthly reporting requirements and produces monthly report forms for mailing. Forms are mailed from a central location. The system directs the returned forms to the assigned worker, generates warning notices to clients whose reports are late, and automatically closes the case if the form is not returned. System screens indicate the status of the monthly reporting forms and allow for the entry of automatic approval of the next month's benefits.

  Both clerical and eligibility workers have responsibilities related to monthly reporting. Clerical workers enter data into the system regarding the receipt of the forms. Eligibility workers enter changed information reported on the returned forms. Incomplete monthly reports and undelivered report forms that are returned require that the worker manually prepare a notice to the client.

- ***Report Generation.*** Reporting capabilities include the generation of reports for workers, management personnel, and Federal agencies. The current systems

automatically produce a variety of Federally required reports, including the Monthly Reconciliation report and the FS-281, FS-301, FS-361, FS-362, FS-401, FS-462, FS-781, FS-821, and FS-826 reports. In addition, the system provides data, which must then be formatted, to produce other FNS required reports. State and local level operational reports also are produced by CIS and LOA.

- ***Program Management and Administration.*** Michigan's current systems do not support any of the program management features often found in other states' systems (e.g., electronic mail, on-line policy manuals).

3.2 Level of Integration/Complexity

CIS and LOA are the primary systems that support FSP and other assistance programs in Michigan. Michigan has performed constant upgrades, fixes, and enhancements to all systems. CIS is a batch-oriented centralized system. It's inputs include data that is key-entered by local clerical staff and electronically transmitted from the LOA system. CIS provides integrated support for the Food Stamp, AFDC, Medicaid, and State Programs.

CIS interfaces with a number of other systems. The budgeting function of LOA interacts with CIS during eligibility determination. CIS serves as the on-line vehicle for all transactions routed to the Services Management Information System (SMIS). CIS interfaces with the Child Welfare System. CIS also interfaces with Medicaid Management Information System (MMIS) and other systems via tape exchange.

The LOA system was developed to support workers in operating an extremely large and complex manual system that used seven policy and technical manuals, 1,200 forms, and 80 reports. LOA and the manual system provide data which is manually entered or electronically transferred into CIS. Despite the implementation of LOA, the current process is very paper intensive.

The ASSIST development effort is intended to provide a system that will automate many of the processes that currently are performed manually. The proposed system will offer features such as on-line policy reference and electronic mail capabilities. The system will provide the complete range of eligibility determination features currently found in the newer systems.

The planned ASSIST design is based on a centralized architecture. Two Unisys 2200/644 multiprocessor mainframe information hubs, which serve as central data repositories and application servers, will be used. Other system components will include U6000 Intel-based UNIX department level servers and personal computer (PC) workstations. System components will be connected through an X.25 network with T1 transport technology. This network will comply with the GOSIP standard.

3.3 Workstation/Caseworker Ratio

Currently, there are approximately 2,800 terminals statewide that access various systems via CIS or issuance networks. The present ratio of caseworkers to workstations is approximately 4:1.

Under ASSIST, each worker will have a dedicated terminal.

3.4 Current Automation Issues

The ASSIST development effort is the prime consideration of Michigan staff; therefore, current system enhancement efforts have been suspended in anticipation of ASSIST implementation.

4.0 SYSTEM DEVELOPMENT AND IMPLEMENTATION

This section discusses the approaches that are being used in Michigan to develop and implement ASSIST.

4.1 Overview of the Previous System

Until ASSIST development is completed, the primary systems supporting FSP are the CIS and LOA. The functional capabilities of these systems are detailed in section 3.1. CIS, which was implemented in 1977, is the basic support system for all program areas. It includes a limited number of local terminals for the collection and entry of case and recipient data. It also supports information retrieval and file maintenance activities. The CIS database contains information on all cases and all recipients, regardless of the program(s) in which they participate. The system also provides a link between caseworkers and benefit issuance and reporting systems for all assistance programs administered by the Michigan Department of Social Services.

LOA is an attempt to provide microcomputer-based automation support for some direct service offices functions. Linkages between LOA and CIS were developed and are in place; however, LOA did not replace the vast majority of the manual processes required for eligibility determination and on-going case management. LOA was implemented in 1985 to provide relief from severe workload demands at the local level. Technical staff consider LOA to be successful in achieving this goal. State staff indicated that Michigan intends to maintain LOA after ASSIST implementation to support programs and functions that are not part of ASSIST.

4.2 Justification for the New System

Expected savings within the first three years of ASSIST operations are projected to be over $142 million. Savings are expected to result from the following changes:

- More accurate eligibility determinations
- Reduction of misspent funds
- Reduction in forms
- Reduction in report generation and distribution expense

Michigan expects ASSIST will enable local office staff to more efficiently and effectively collect information, determine eligibility, and modify case information and benefit levels when policies or circumstances changes.

The State expects to realize cost savings of over $63 million due to reduced error rates with ASSIST.[3] This projection is based on an expected 46.5 percent reduction in mispayments across all program areas. By program, the expected cost savings are as follows:

- AFDC - $25,575,000
- FSP - $20,786,000
- Medical Assistance - $15,020,000
- State Assistance - $2,032,100

4.3 Development and Implementation Activities

ASSIST development began in the middle 1980s. The decision to develop or transfer a new system was made in 1985, and the State submitted its initial Advanced Planning Document (APD) in July 1985. DHHS and FNS approved the APD in December 1985 and February 1986, respectively.

The original project timeframe required the completion of the Detailed System Design in May 1987 and full statewide operations by 1993; however, project timeframes were delayed. The APD was amended in November 1987 and FNS determined that the ASSIST design met Model Plan requirements and approved the amendment in February 1988. DHHS rejected the amendment and, in October 1988, advised the State that it could continue the project after submitting a Systems Requirement Document.

The State submitted an APD Update (APDU) in November 1988 and then proceeded to submit an APD for a quality assurance (QA) contractor in May 1989 and a Request for Quotations (RFQ) for a prime contractor in July 1989. FNS also conducted a pre-installation on-site review of ASSIST and noted that Michigan was not in compliance with

[3] Source: Implementation APD, November 1992.

Income and Eligibility Verification System (IEVS) requirements, a situation which could jeopardize FNS funding if not remedied by the time of statewide implementation.

A Request for Proposals (RFP) was issued in June 1990 and contractor bids were received shortly thereafter. Bid evaluations were completed and a contractor was selected in March 1991. An unsuccessful bidder filed a protest following the contract award, significantly delaying the start of the development effort. The State requested amended bids in February 1992; following the evaluation of the amended bids, the State selected Unisys as its prime contractor in June 1992.

ASSIST project activities resumed in late 1992. The State submitted a revised APD in November 1992. A contract to provide hardware and develop and implement the system was awarded to Unisys in January 1993. ASSIST development efforts were initiated in March 1993. By April 1993, the Requirements Analysis and General System Design had been started. The system is scheduled to be fully operational statewide by September 1996.

4.4 Conversion Approach

The conversion approach had not been finalized as of April 1993. State APD documents indicated that ASSIST conversion will be automated to the extent possible.

4.5 Project Management

There are several levels of ASSIST project oversight. The executive sponsor of the project, the Director of DSS, is responsible for major programmatic decisions and issue reconciliation. The executive steering committee, which consists of the DSS Director and Deputy Director as well as directors of the five DSS administrations and two offices, is responsible for addressing project scope, delegating responsibility within DSS, and reviewing and certifying major project milestones.

The project steering committee is responsible for implementation decisions, project monitoring, and issue resolution. The steering committee is comprised of bureau or office directors from the following areas:

- Human Resources
- Accounting and Administrative Services
- Payment Systems
- Internal Audit
- Quality Assurance
- Budget
- Bureau of Information Systems
- Legal Affairs
- Office Services
- Financial Assistance
- Child Support

- Program Support
- Employment Support Services
- Training and Staff Development
- Systems and Technical Services
- Facilities Management
- FSA Out - State Operations
- FSA - Wayne County Operations
- ASSIST Project Director

The project steering committee also includes zone and local office management representatives and union representatives.

The project director of the state implementation management team leads the ASSIST project staff. This group is responsible for day to day project decisions and oversight of the prime contractor, QA contractor, and BIS staff providing technical assistance to the development effort. The core project team for ASSIST development consists of six FSP, five AFDC, and ten systems oriented personnel.

The current project manager reports to the Management Resources and Information Systems Administration within DSS. During the current phase, the project manager has been fully dedicated to the project; this level of involvement is expected to continue until the project is completed. The project manager's experience relevant to this effort includes 14 years of public assistance program experience, eight years of management information systems (MIS) experience, eight years of project management experience, and 16 years of experience with similarly sized projects.

4.6 FSP Participation

FSP staff have participated in the ASSIST project in several areas. User groups, comprised of FSP, AFDC, and Medicaid management personnel, have been utilized in the development effort and will be used throughout the project. User groups' responsibilities include reviewing and approving submitted deliverables. Food Stamp Program staff also participated in the on-site review of potential candidate systems and user requirements phase of the project. Personnel with an FSP background are members of the ASSIST project staff.

4.7 MIS Participation

MIS staff have participated in the project since its inception. A separate unit has been established for the project within the Office of Advanced Technology Systems in the MRISA. The ASSIST Project Unit includes a Technical Services Section and a Program Support Section. The latter contains 10 line positions, including FSA liaison staff and a local office supervisor on loan.

4.8 Problems Encountered During Development and Implementation

The ASSIST development effort, which began in 1985, has encountered delays due to several factors. Perhaps the most serious factor was the contested bid for the prime contractor. Disagreements between Federal agencies about cost allocation plans, long review periods for APDs and other documents by the Federal agencies, and internal difficulties also were cited by State staff as factors that contributed to the overall length of the project. The State did not elaborate on the details regarding these factors and the delays they caused.

As of April 1993, the ASSIST project currently was in the functional requirements definition phase. There have not been any reported delays or major problems between January 1993 and April 1993.

5.0 TRANSFERABILITY

Food Stamp Program staff identified several criteria as desirable features for state systems being evaluated as potential transfer candidates. These features included:

- Similar caseloads
- Similar state and FSP organizational structure
- Similar caseworker roles and responsibilities
- Similar approach to implementing the Food Stamp Program
- Similar FSP administration (state or county-administered)
- Degree of application integration
- Desirability of functions and capabilities offered
- FAMIS certification

ASSIST project management staff indicated, however, that only FAMIS certification was critical to the transfer decision.

State staff indicated that several systems were considered and/or reviewed to identify a transfer candidate. State systems that were considered included systems from Ohio, Arizona, Connecticut, South Dakota, New Mexico, Louisiana, and North Dakota. ASSIST project management staff indicated that only the Ohio and Connecticut systems were considered to be feasible transfer candidates.

The selected transfer system was Connecticut's Eligibility Management System (EMS), which was bid by the prime contractor, Unisys. Components of other systems also were transferred; these components included Ohio's group composition module and Rhode Island's on-line policy manual.

ASSIST is designed to be a distributed system operating on dual Unisys mainframes acting as central data repositories and application servers to a network of Intel-based UNIX departmental servers connected to intelligent workstations for all workers. The software environment includes

the use of Unisys's Universal Data System using DMS, a data manager structured on the CODASYL database task group model.

The hardware and software choices and the distributed approach planned for ASSIST will require modifications to the system transferred from Connecticut. EMS will be moved into the Unisys environment using the Excelerator Design Recovery CASE tool. CASE tools (E-R Modeler Workbench from Chen and Associates) also will be used for entity modeling in the development phase. Structured analysis and design will be completed using the Excelerator CASE tool from Intersolv. COBOL will be used for application development.

The distributed nature of ASSIST and the use of Intel-based UNIX servers is a departure from the standard central processor/dumb terminal model that has been used in many states for recent automated system development efforts. If Michigan is successful in implementing this design, ASSIST could provide an option to states with local office automation needs outside of those provided by an automated eligibility determination system.

6.0 SYSTEM OPERATIONS

The following section provides a description of the Client Information System. The description includes a profile of system components and a discussion of the system operating environment.

6.1 System Profile

The components supporting the Client Information System are as follows:

- **Mainframe:** Honeywell Bull DPS 90/93
- **Disk:** Honeywell Bull 3380 triple-density (8 strings)
- **Tape:** Honeywell Bull 3240-type reel-to-reel drives
  Storage Tek robotic silos
- **Printers:** Honeywell Bull 4150 simplex laser
  Honeywell Bull 4180 duplex laser
  Data Products BP2000 impact
- **Front Ends:** Honeywell Bull Datanet 8
- **Workstations:** Unisys B20 and B30 intelligent workstations
- **Telecommunications Network:** CIS Network - 4.8 KB multi-drop, leased circuits tied directly to FEPs using Honeywell VIP and X.25 protocols

Issuance Network - 2.4 KB X.25 circuits connecting five concentrators to 145 issuance workstations; 9.6 KB circuits connecting concentrators to the central data center.

A detailed hardware list is included as Exhibit A-6.1 in Appendix A.

6.2 Description of Operating Environment

This section describes the operating environment in Michigan. Areas addressed include operations and maintenance, telecommunications, and system performance, response time, and downtime. Current activities in the systems area and future plans also are addressed.

6.2.1 Operating Environment

The Bureau of Information Systems oversees the data center that serves the Department of Social Services. The data center currently operates 24 hours per day, six days per week. On-line systems process data from 7 a.m. to 6 p.m. Monday through Saturday and production workloads can be run on Sunday if demand requires it. The batch cycle runs from 7 p.m. to 7 a.m. Monday through Saturday. Batch cycle activities include full file backups for critical data and incremental backups for other files.

The mainframe system that supports CIS is a Honeywell Bull DPS 90/93, a 24 millions of instructions per second (MIPS) system with 224 megabytes (MB) of memory and 32 channels. The 3380-type disk storage devices provide 110 gigabytes of disk storage. The tape library consists of approximately 35,000 round reels and 17,000 tape cartridges, supported by 32 reel tape drives and three robotic tape systems (silos) with a total of 40 tape transports. Migration from round tapes to cartridges is underway, but the target date for full conversion has not been established yet.

Workstations are intelligent Unisys B20 and B30 units tied together with a fiber optic network within the local office. The interface to the mainframe enables the workstation to operate as a dumb terminal.

The State does not have an approved disaster recovery plan or security plan.

6.2.2 State Operations and Maintenance

DSS data center staff totals 143 individuals, including 42 computer operators. One responsibility of data center staff is to sort reports that are printed at the central site by output destination. The Office of Management and Budget is responsible for physical delivery of the packaged reports. Program staff believe that report delivery and response to food stamp maintenance service requests are more than adequate.

State staff also indicated that the skill level and the quantity of technical staff are sufficient to support the existing systems. Although State representatives believed that

Michigan generally was competitive in hiring and retaining qualified technical staff, they also indicated that higher salary levels would enhance the State's competitive position.

The data center also provides two additional services. Two recognition equipment scanners read Medicaid payment requests optically and create a tape file for input into the CIS mainframe application for processing. Fields and documents that cannot be scanned can be key entered to enable capture of all billing information.

DSS also creates and mails to clients embossed magnetic cards used by 85 percent of food stamp recipients to pick up their monthly allocation at designated issuance points. A magnetic tape is created from CIS for all newly authorized clients and processed on the Data Card 4000 unit. From this tape, a card, as well a mailing insert, is created for each new client. DSS staff stuffs and mails these cards. The unit can processes nearly 1,000 cards per day.

The state also uses a DPS 6+ system to conduct and control all external data communications activities. The DPS 6+ is connected directly to the DPS 90/93 mainframe. Data to be received from external agencies is received from the source to the DPS 6+ and then staged to the 90/93. Outgoing data is staged from the 90/93 to the DPS 6+ and then transmitted to the external agency. This intermediate step creates a secure buffer between the external source and the agency mainframe.

Hardware and software maintenance activities and backups of all files are scheduled for Sundays since production jobs normally are not run on Sundays. Daily backups are taken offsite one day after their creation. The most current backup (from the previous night) is retained onsite for one day, in case the State needs to restore the data.

6.2.3 Telecommunications

The State does not currently have a backbone network supporting all telecommunications activities. The Food Stamp Program is supported by two separate networks: CIS integrated assistance and the issuance network.

The CIS network consists of approximately 100 4.8 KB or 9.6 KB multi-dropped data circuits linked directly to the main data center's front end processors (FEP). Three quarters of the circuits use a Honeywell VIP protocol (4.8 KB), while the other 25 percent use the X.25 (9.6 KB) protocol. New field locations are expected to use the X.25 protocol, if funds permit this choice.

The issuance network is made up of five X.25 PADS (nodes) located in Kalamazoo, Grand Rapids, Lansing, Saginaw, and Wayne County (Detroit). These nodes function as concentrators for 145 locations throughout the State. The five sites are connected to the Lansing FEPs via 9.6 KB circuits. The concentrators are connected to each issuance workstation via a 2.4 KB X.25 circuit. Each workstation consists of a terminal to access the CIS case file, a printer to create a document that clients sign at the issuance point, and

a magnetic card reader to capture the recipient's case number from the magnetic stripe card.

ASSIST system planning includes a new network and the State also plans to implement a T1 backbone to provide full support for both the eligibility determination/benefit calculation and issuance functions. Plans for the implementation of the new network have not been approved yet.

6.2.4 System Performance

Currently, the DPS 90/93 is running at 100 percent utilization during the prime shift (on-line processing). The system processes 235,000 on-line transactions per day, 107,000 of which are related to food stamp activities. The system utilization rate during the off shifts (batch processing) is 90 percent. CIS currently uses approximately 17 percent of the total mainframe capacity.

Although the processor is out of capacity, the State has not made a decision with respect to upgrading its system to the DPS 9000. Since ASSIST will be implemented within three years, there is a great deal of reluctance to spend money on a system upgrade to provide an interim solution. Data center staff indicated, however, that a solution must be implemented in the near future or system performance could degrade markedly. To date, Food Stamp Program and systems personnel have not experienced problems associated with performance degradation.

6.2.5 System Response

State staff reported response times to be in the three to six second range. Some slow response times were reported. Since the processor is at full capacity and the implementation of an upgrade requires lead time, State staff expect deterioration of response times in the near future.

6.2.6 System Downtime

State staff indicated that the system has been very reliable. Uptime percentages for hardware, software, and network components all exceeded 99 percent. There was a problem with system availability in 1992 following the implementation of a new transaction processor, the TP8. A higher incidence of outages (approximately three to five percent) occurred for an interim period. This problem has been corrected and availability has returned to its 99 percent level.

With Michigan's system, the impact of an outage varies depending on where it occurs. An issuance network outage prevents all issuance capability since the distribution point relies on CIS to provide each recipient's allotment amount. A CIS network outage does not have a major impact since caseworkers use the LOA system on office workstations and are off-line to the mainframe for eligibility determination and budget calculations.

6.2.7 Current Activities and Future Plans

Michigan currently is in the functional requirements definition phase of its ASSIST project. The planned date for beginning implementation is 1995.

A proposal to replace the existing DPS 90/93, installed in 1991, with the faster DPS 9000 -- to relieve the current mainframe capacity constraints -- has been submitted to State officials, but the request has not been approved or denied yet. After receiving approval from State officials, an APD would have to be submitted and approved before the State could acquire the hardware.

The State plans to add an additional Storage Tek robotic silo when growth in the number of tape cartridges surpasses the capacity of the current three silos. Funding for the fourth silo has not been approved by either the State or Federal agencies.

The State also plans to implement a T1 backbone network. Currently, target dates for approval and implementation of the backbone have not been established.

7.0 COST AND COST ALLOCATION

This section addresses ASSIST system development costs and approved Federal funding, ongoing Food Stamp System operating costs, and cost allocation methodologies applied to allocating development and operating costs.

7.1 ASSIST Development Costs and Federal Funding

ASSIST has been proposed in three APDs submitted in 1985, 1989, and 1992. Revisions to each of these APDs also were submitted for FNS approval in the intervening years. Table 7.1, ASSIST System APD History, presents the proposed costs and allocation of these costs to the Food Stamp Program as documented in each of the APDs.

Table 7.1 ASSIST APD History

APD	Estimated ASSIST System Cost	FSP Share (in dollars)	FSP Share (as % of total ASSIST costs)
1985	$24,433,689	$6,530,000[4]	26.73%
1989	$65,224,543	$16,044,836	24.60%
1992	$85,421,194[5]	$32,057,718	37.53%

[4] Letter, 12/18/85.

The costs expended in developing ASSIST from FY 1985 through FY 1992 are presented in Table 7.2, ASSIST Costs Incurred Through FY 1992. This table shows that more than $9 million has been expended on ASSIST through the end of FY 1992. The FSP share for development, $3,127,835, represents almost 35 percent of the total development costs. For hardware, $25,822 or 36 percent of total hardware costs is the share allocated to the FSP for that period.

Table 7.2 also provides Federal financial participation (FFP) percentages and amounts. FNS funded all development at 75 percent, and total FNS funding during the period was $2,081,871. The FFP for the hardware was not clearly identified; however, an additional $5,726 (22 percent) in FNS funding for hardware was documented.

Table 7.2 ASSIST Costs Incurred Through FY 1992

	FY 1986	FY 1987	FY 1988	FY 1989	FY 1990	FY 1991	FY 1992	TOTAL
Development - Direct Costs	359,762	700,769	1,029,869	685,049	823,444	1,000,163	1,712,432	6,311,488
Development - Indirect Costs	134,304	355,361	249,940	320,301	515,885	420,641	659,972	2,656,404
Hardware	0	73,783	-1,835	0	0	0	0	71,948
Total ASSIST	**494,066**	**1,129,913**	**1,277,974**	**1,005,350**	**1,339,329**	**1,420,804**	**2,372,404**	**9,039,840**
FSP Share - Development $	177,246	352,358	459,903	360,777	480,383	509,751	787,417	3,127,835
FSP Share - Development %	36%	33%	36%	36%	36%	36%	33%	35%
FSP Share - Hardware $	0	26,481	-658.58	0	0	0	0	25,822
FSP Share - Hardware %		36%	36%					36%
FNS Federal Matching Amount - Development $	132,935	264,269	344,927	270,583	360,287	382,313	590,563	2,345,876
FNS FFP - Development %	75%	75%	75%	75%	75%	75%	75%	75%
FNS Federal Matching Amount - Hardware $	0	5,873	-146.06	0	0	0	0	5,727
FNS FFP - Hardware %		22%	22%					22%

Table 7.3, Estimated ASSIST Costs Through FY 2000, shows the estimated costs by fiscal year of ASSIST through implementation and conversion as presented in the 1992 APD. It shows that the share of the ASSIST budget allocated to the Food Stamp Program will be maintained at 37.53 percent for the duration of the project. Since the State has already incurred costs of over $9 million for ASSIST development and an estimated additional $85.4 million is required to complete the system, the total cost of ASSIST is estimated to be almost $94.5 million, which is almost four times the original estimate of $24.4 million as provided in the 1985 APD. No specific information was provided by the State as to why the final total cost is estimated to be almost quadruple the original estimate.

Table 7.3 also shows that enhanced funding is planned through the end of conversion in FY 1996. According to FNS correspondence, enhanced funding at 75 percent FFP will be approved for total system costs not to exceed $64.7 million, at which time enhanced funding will be reduced to 63 percent.[6] By the end of FY 1996, however, system costs of $68.5 million will have been incurred, exceeding the $64.7 million by almost $4 million. No revisions to the 1992 APD budget have been documented to address this funding adjustment. At a 37.53 percent share, the savings to FNS would be just over $171,000. (NOTE: On April 1, 1994, after the on-site visit, enhanced funding was eliminated.)

Two exhibits in Appendix A provide additional detail about ASSIST system costs and approved funding. Exhibit A-7.1, 1992 APD Estimated Costs by Component, provides a detailed breakout of major cost components by fiscal year for FY 1993 through FY 2000. Exhibit A-7.2, FNS Funding Approvals for ASSIST, provides the FNS funding history for the ASSIST project as currently documented.

Table 7.3 ASSIST Estimated Costs Through FY 2000

FY	ASSIST Costs	FSP Share ($)	FNS Share (%)	FNS FFP 75%	FNS FFP 50%
1993[7]	14,451,354	5,423,449	37.53	3,617,238	300,232
1994	19,979,886	7,498,251	37.53	5,192,690	287,333
1995	25,679,283	9,637,178	37.53	6,747,608	320,184
1996	13,614,416	5,109,354	37.53	3,100,791	487,483
1997	4,670,776	1,752,896	37.53	0	876,448
1998	4,642,162	1,742,156	37.53	0	871,078
1999	1,603,895	601,926	37.53	0	300,963
2000	779,422	292,508	37.53	0	146,254
Total ASSIST Costs	**85,421,194**	**32,057,718**	**37.53**	**18,658,327**	**3,589,975**

7.1.1 ASSIST System Components

ASSIST will support the following programs: AFDC, Food Stamp Program, Medical Assistance, and State Assistance, including Refugee Assistance, Child Care, State Emergency Relief, MOST/JOBS, Energy Program, and Repatriate Assistance.

[6] Letter, 10/26/89.

[7] Letter, 1/9/93.

7.1.2 Major Development Cost Components

Exhibit A-7.1, 1992 APD Estimated Costs by Component, in Appendix A provides budgeted amounts for the ASSIST project by cost component. Nearly 72 percent of all ASSIST costs are expected to be incurred in two categories: contractor personnel and hardware. The four major cost components discussed in the 1992 APD budget are described below.

7.1.2.1 Hardware

The hardware required to support ASSIST is budgeted at $22.7 million; $8.4 million is allocated to developmental hardware and the remaining $14.3 million is budgeted as operational hardware. Approximately $72,000 in hardware costs were incurred prior to the award of the development contract.

7.1.2.2 Contractor Costs

Michigan has contracted with three outside companies to provide support to the ASSIST system planning, development, and implementation effort:

- ***Coopers and Lybrand*** was awarded a planning services contract in May 1987. The period of performance was scheduled to continue through May 1988. The dollar value of this award was $449,500. This effort produced the following products: ASSIST SDA/System External Specifications (SES) Work Plan, Hardware Alternatives Document, Transfer Feasibility Document, System Design Alternatives, Network Design Criteria, and Project Master Plan. Coopers and Lybrand requested additional funding of $157,000 to complete the SES. This amount was reduced to $75,000 in subsequent negotiations.[8] Additional funding was withheld pending award of a new contract; however, a new contract was not awarded.

- ***Unisys, Inc.*** was awarded the development and implementation contract to transfer, modify, and implement ASSIST; convert existing data; and install hardware to support ASSIST. The contract was awarded in January 1993. The period of performance was specified as five years and the dollar value of the contract was approximately $60 million. From this total, approximately $35 million was allocated to personnel costs and $22.7 million for hardware costs.

- ***Maximus, Inc.*** was awarded a contract to provide Quality Assurance services to the ASSIST system development and implementation effort. The contract was awarded in February 1990 and continues through June 1994. The dollar value of the contract was $1,499,818. For the period of FY 1993 through FY 1996,

[8] Letter, 6/15/88.

Maximus was budgeted $1.17 million. Approximately $330,000 has been expended since the contract was awarded.

An additional $371,000 is budgeted for contractor services provided by the Michigan Management and Budget Department to support facility upgrades and relocation efforts.

7.1.2.3 State Personnel Costs

State personnel costs are budgeted at $5.9 million. An additional $3 million is budgeted for training personnel to use ASSIST.

7.1.2.4 Facility Upgrades, Relocations, and Site Preparations

Over $7 million has been budgeted for facilities improvements. DSS plans to upgrade every facility it currently occupies to improve electrical, mechanical, and office automation facilities. Fifty-seven offices require detailed engineering services; 20 offices are targeted for relocation and subsequent rent increases. Facilities, upgrades, and relocations are targeted for completion by the end of FY 1996.

7.2 Michigan Operational Costs

Operational costs for the systems that currently support the Food Stamp Program in Michigan for Federal Fiscal Year (FFY) 1990 through the first quarter of FFY 1993 are presented in Table 7.4. These costs are comprised of CIS costs, which include the costs of the on-line processing portion of the system, and various other software modules which perform batch processing and reporting activities.

Table 7.4 Michigan Food Stamp System Operating Costs

Federal Fiscal Year	Operating Costs	Average Monthly Operating Costs	FNS FFP at 50%
1991	$2,573,407	$214,450	$1,286,704
1992	$2,422,576	$201,881	$1,211,288
1993 (1st qtr)	$516,538	$172,179	$258,269

7.2.1 Cost Per Case

The monthly cost per case for FY 1992 was $0.50. This cost was calculated based on the average monthly operational costs for FSP in FY 1992, $201,881, and the 1992 average monthly food stamp caseload of 407,389 households.

7.2.2 ADP Operational Cost Control Measures and Practices

All central processing unit (CPU) and peripheral usage is accumulated at the time of job execution by the Total Resource Accounting System (TRAC). TRAC identifies the program area to be charged for computer resources based on an identifier. The identifier ultimately is associated with a cost center.

Labor hours are captured in a time accounting system called Project 70. Programmer and analyst time is accumulated using timesheets and the information recorded on the timesheets then is input into Project 70.

Personnel time data from Project 70 and computer resources usage data from TRAC then are input into a Billing and Accounting (B&A) System. The B&A System calculates the cost of these resources by using a set of rates maintained within the system. The B&A System allocates all charges associated with a single program to a cost center that is allocated 100 percent to that program. The B&A System accumulates all charges shared by multiple programs into cost centers which then are allocated based on unduplicated case count.[9]

7.3 Michigan Cost Allocation Methodologies

The following section addresses the cost allocation plan (CAP) in effect for allocating ASSIST development and implementation costs. It also addresses the cost allocation methodology currently in use for allocating costs associated with on-going operations of the current system which supports the Food Stamp Program.

7.3.1 Historical Overview of Development Cost Allocation Methodology

The ASSIST CAP was developed according to the *Ratified Cost Allocation Procedures - State Automated Data Processing Systems* agreed to by the Department of Health and Human Services and the Department of Agriculture for integrated eligibility systems. The CAP was submitted to the Federal agencies for approval on August 14, 1987 and approved by DHHS in October 1987. The approved CAP was then incorporated into the APD submitted December 7, 1989. This APD was approved in January 1990 by DHHS and in April 1990 by FNS. The program allocations were:

- AFDC, 40.015 percent
- Medicaid Eligibility, 8.176 percent
- Food Stamp Program, 35.892 percent
- General Assistance, 15.922 percent

The CAP submitted with the November 1992 APD revised the 1989 plan. Allocations to the General Assistance Program were removed, allocations to the State Assistance

[9] The hierarchy for unduplicated case count is: (1) AFDC; (2) Medicaid; (3) Food Stamp Program.

Program were added, and the percentages allocated to Federal programs were modified. The program allocations in the 1992 CAP were:

- AFDC, 46.121 percent
- Medicaid Eligibility, 8.177 percent
- Food Stamp, 37.529 percent
- State Assistance, 8.179 percent

The process for calculating each of the 1992 program allocations considered two factors:

- The estimated percentage of time required to develop each ASSIST subsystem.
- The complexity of the policy driving each sub-function supported by the system.

The process divided the system into three subsystems; each subsystem was then broken into functions and sub-functions. The time and resources required to develop each subsystem were estimated based on consultation with the Bureau of Information Systems personnel.[10]

Table 7.5, Subsystem Resource Requirements, shows the estimated resource requirements for the three ASSIST subsystems: Eligibility Determination, Financial Information and Control, and Management Information and Control. Table 7.5 also identifies each subsystem's functions and indicates the number of sub-functions that comprise each function.

Each sub-function then was assigned a weight factor based on the complexity of the policy driving each sub-function. Table 7.6, Weight Factors, shows each weight factor and the criteria used to determine the level of complexity associated with that factor.

[10] The Bureau regularly estimates development costs and is able to project estimates of time, personnel and hardware usage in project development. The estimates are based on SDM/70 phases, application systems knowledge and experience with similar projects.

Table 7.5 Subsystem Resource Requirements

% Dev. Cost	ASSIST Subsystem	Subsystem Functions	# of Sub-functions
65%	Client Certification	Eligibility Determination	11
		Eligibility Support	11
		Application/Redetermination	5
		Eligibility Maintenance	7
20%	Financial Information and Control	Benefit Issuance	5
		Benefit Reconciliation	3
		Security and Backup	1
15%	Management Information and Control	Supervisory Case Review	1
		Quality Control Processing	1
		Federal/State/Local Reports	1
		Training	1
		Communications Network	1

Table 7.6 Weight Factors

Weight Factor	Level of Complexity
1	The policy is essentially stand-alone; there is no additional effect in other areas of program eligibility determination and maintenance.
2	The policy is straightforward, but it has the potential to lead into at least two other areas of eligibility determination.
4	The policy is extremely complex, and it impacts several other areas of eligibility determination.

The weight factors assigned to each sub-function were then totalled by subsystem. The percentage weight factor attributable to a specific sub-function within a subsystem then was calculated as follows:

Sub-function % = Sub-function weight factor ÷ Total Sub-function weight factors for subsystem

The share of the ASSIST development costs to be allocated to each sub-function was calculated based on the percentage of development costs estimated for the total subsystem, as follows:

ASSIST Share = Sub-function % * % Dev. Cost * 100.

If the sub-function supported only one funding program, the ASSIST share was added into a total for that program. If the sub-function supported more than one funding program, the ASSIST share was added into one of four intermediate cost pools. The total accumulated into each of these cost pools was then allocated to the funding programs as follows:

- ***AFDC/State Assistance.*** The ASSIST share was prorated based on the percentage of combined caseloads associated with each program.[11]

- ***AFDC/State Assistance/Food Stamp.*** The ASSIST share was prorated based on the percentage of the combined caseload associated with each program. The Food Stamp Program count included both public assistance and non-public assistance cases.

- ***AFDC/Medicaid Eligibility/Food Stamp.*** The ASSIST share was split among the three programs equally.

- ***All Programs.*** The ASSIST share was allocated based on the instructions agreed to by the Office of Family Assistance (OFA), the Health Care Financing Administration (HCFA), and the Department of Agriculture. The costs attributed to Medicaid, following the spread, were combined with AFDC.

The total ASSIST share for each funding program was calculated after intermediate cost pools were allocated to each program. These totals became the program allocation percentages proposed in the 1992 CAP. This plan was approved by FNS in March 1993.[12]

7.3.2 Operational Cost Allocation Methodologies and Mechanics[13]

The B&A System calculates the charges for personnel and computer resource usage accumulated during the reporting period using the following formula:

RESOURCE COST = RESOURCE USAGE * RESOURCE UTILIZATION RATE

Twenty-two resource utilization rates are maintained by the B&A System. Each resource rate is based on the estimated indirect charge appropriation expenditure and utilization data for that particular resource. The utilization data is manually tracked from month to month. The utilization figures used to compute the utilization rate are averages from the six month period immediately preceding the rate computing process. The utilization rate

[11] Monthly caseload data is based on an eleven month average for caseloads recorded for October 1, 1991 through August 31, 1992.

[12] Letter 3/8/93.

[13] Information extracted from the Agency Cost Allocation Plan, Appendix A, Cost Allocation and Direct Charge Plan for the Bureau of Information Systems, effective 10/31/88.

of each resource is computed semiannually. Table 7.7, Major Operating Resource Rates, lists eight of the 22 operating resources and the measurement used to determine the appropriate utilization rate.[14]

Resources that are not assigned a unique resource utilization rate and cannot be specifically associated with a single program area are assigned to a *spread*. The current spreads include:

- ***Operations Administrative Spread.*** This category contains costs pertaining to the ADP Operations Division which are not identifiable to a particular charge rate. These costs are spread to the production areas within a particular division.

- ***Systems Development Administrative Spread.*** This category contains salaries and related costs for first-line supervisors and higher level supervisory staff in the Systems Development Division.

- ***Bureau Administrative Spread.*** This category contains all other costs not specifically assigned a utilization rate. These costs are included in Bureau administration costs.

[14] The 14 resources not addressed include low usage support equipment including collators, folders, imprinter-detachers, inserters, encoders, and optical character readers.

Table 7.7 Major Operating Resource Rates

RESOURCES	RESOURCE UTILIZATION MEASUREMENT
Central Processor Unit	Total usage of the central processor units.
Memory as measured in K-words (representing the size of the memory required by the program)	Number of K-words * Amount of CPU time for the program.
Disk Input/Output	Amount of time spent reading disk storage or writing to disk; measured in seconds.
Tape Input/Output	Amount of time spent reading and writing data to the tape; measured in seconds.
Records Output	Traffic volume going through the SYSOUT file (the disk storage area that acts as a buffer between program execution data output and the terminals or printers used to display the data); measured in thousands of records.
On-line Printer	Channel minutes.
Systems Analysts and Programmers	Hours or portions of hours spent maintaining programs and systems that are executed by the computer; tracked using project control system, Project 70.
CIS Dedicated Costs (monthly cost of operating the CIS network).	Tracked and charged like any other computer application; includes costs for the Communications Center, the Bell Telephone line charges, and the terminal equipment placed throughout the State.

APPENDIX A

STATE OF MICHIGAN

EXHIBITS

Exhibit A-2.1
Response to Regulatory Changes

Code	Regulation	Provision	Federally Required Implementation Date	Implemented on Time (Y/N)?	Computer Programming Changes Required (Y/N)?	Changes to State Policy/ Legislation Required (Y/N)?
1.1	1: Mickey Leland Memorial Domestic Hunger Relief Act	1: Excludes as income State or local GA payments to DHHS provided as vendor payments. 273.9(c)(1)(ii)(F)	8/1/91	N/A	N/A	N/A
1.2	1: Mickey Leland Memorial Domestic Hunger Relief Act	2: Excludes from income annual school clothing allowance however paid. 273.9(c)(5)(i)(F)	8/1/91	N/A	N/A	N/A
1.3	1: Mickey Leland Memorial Domestic Hunger Relief Act	3: Excludes as resource for Food Stamp purposes, household resources exempt by Public Assistance (PA) and SSI in mixed household. 273.8(e)(17)	2/1/92*	N	N	Y
1.4	1: Mickey Leland Memorial Domestic Hunger Relief Act	4: State agency shall use a standard estimate of shelter expense for households with homeless members. 273.9(d)(5)(i)	2/1/92*	N	N	Y
2.1	2: Administrative Improvement & Simplification Provisions of the Hunger Prevention Act	1: Extended resource exclusion of farm property and vehicles. 273.8(e)(5),etc.	7/1/89	Y	N	N
2.2	2: Administrative Improvement & Simplification Provisions of the Hunger Prevention Act	2: Combined initial allotment under normal time frames. 274.2(b)(2)	1/1/90	N	Y	Y
2.3	2: Administrative Improvement	3: Combined initial allotment	1/1/90	N	Y	Y

Exhibit A-2.1
Response to Regulatory Changes

Code	Regulation	Provision	Federally Required Implementation Date	Implemented on Time (Y/N)?	Computer Programming Changes Required (Y/N)?	Changes to State Policy/ Legislation Required (Y/N)?
3.1	3: Disaster Assistance Act & Non-Discretionary Provisions of the Hunger Prevention Act	1: Exclusion of job stream migrant vendor payments. 273.9(c)(1)(ii)	9/1/88	N/A	N/A	N/A
3.2	3: Disaster Assistance Act & Non-Discretionary Provisions of the Hunger Prevention Act	2: Exclusion of advance earned income tax credit payments. 273.9(c)(14)	1/1/89*	N	N	N
3.3	3: Disaster Assistance Act & Non-Discretionary Provisions of the Hunger Prevention Act	3: Increase dependent care deductions. 273.9(f)(4), etc.	10/1/88	N	Y	Y
3.4	3: Disaster Assistance Act & Non-Discretionary Provisions of the Hunger Prevention Act	4: Eliminate migrant initial month proration. 273.10(a)(1)(ii)	9/1/88	N	Y	Y
4.1	4: Issuance	1: Mail issuance must be staggered over at least ten days. 274.2(c)(1)	4/1/89	N/A	N/A	N/A
4.2	4: Issuance	2: Limitation on the number of replacement issuances. 274.6(b)(2)	10/1/89	Y	N	Y
4.3	4: Issuance	3: Destruction of unusable coupons within 30 days. 274.7(f)	4/1/89	Y	N	Y

* These dates were changed after the State completed this form and the site visit occurred; therefore, the responses to these particular changes may be inaccurate.

Exhibit A-6.1
State of Michigan Hardware Inventory

Component	Make	Acquisition Method	Number/Features
CPU			
DPS - 90/93	Honeywell Bull	Purchase	32 channels, 224 MB main storage, 3 processors, 24 MIPS
DISK			
3380	Honeywell Bull	Purchase	3380 (29 drives)
TAPE			
Reel Drives	Honeywell Bull	Purchase	3420-type (32)
Robotic Silos	Storage Tek	Purchase	4400 (5)
PRINTERS			
Impact	Data Products	Purchase	BP2000 (2)
Laser	Honeywell Bull	Purchase	4150 (1) 4180 (1)
FRONT ENDS			
FEP	Honeywell Bull	Purchase	BULL Datanet 8 (3)
MISC.			
Database CPU	Honeywell Bull	Lease	Teradata-made DB processor channel-attached to mainframe
REMOTE EQUIPMENT			
Workstations	Unisys	Purchase	B20/B30 intelligent workstations (2,800)

Exhibit A-7.2
FNS Funding Approvals for ASSIST

Fiscal Year	Funding Request	Funding Approval	Comments
1986	1985 APD Total System Cost $24.4 million; FNS share $6.53 million	2/18/86 letter issuing project approval for $3,152,600.	75% FFP: • Development: $4,875,812@ 30% • Contractual Costs: $4,380,000@ 30% • Hardware: $15,177,875@ 9%.
1989	Letter 5/15/89 requesting approval of an APD revision for a Quality Assurance Contractor: $79,963 for FY 1989	No specific response available.	
1990	1989 APDU; $1.6 million for period 4/1/88 through 12/16/89	10/3/89 letter issuing approval for $437,582 for period 4/1/88 through 9/30/89.	$1.6 million, FNS share $583,442@ 35.89%; funded at 75%.
1990	Amended APD 12/89; $1.8 million	4/23/90 letter issuing approval for $619,598.	$2.3 million less $500,000 for local renovation. Food Stamp share is 35.892%, or $826,131; funded at 75%.
1991	1991 APDU	3/27/91 letter issuing approval for $1,882,089 to cover actual and estimated costs of ASSIST during the period 10/1/90 through 9/30/91.	Total estimated costs: $7,335,028; Food Stamp share: 34.21%, or $2,509,452; funded at 75%.
	Revised APD 6/91	8/5/91 letter issuing approval for $61,894 for the Automated Tape Cartridge System.	Total cost to acquire Automated Tape Cartridge System was estimated to be $1.4 million; Food Stamp share, 8.83%, was $123,787. Previously approved $66,800 in 12/18/90.
1992	1992 APD; Total costs for FY 1992, $4.3 million. Food Stamp share, 33.96%, or $1,467,597; FFP at 75%, $1,100,698	11/25/92 letter issuing approval for $1,100,698.	75% FFP was granted.
1993	APDU submitted 11/92 with a total budget of $85,421,194.	3/8/93 letter approving funding at the 75% level for $64.7 million costs budgeted prior to 9/30/91; 63% for all costs budgeted after 9/30/91.	Cost Allocation Plan was approved; Unisys contract was approved.

Exhibit A-7.1
1992 APD Estimated Costs by Component

Cost Category	FY 1993	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	TOTAL
State Personnel	1,584,092	1,688,176	1,747,272	903,542	0		0	0	5,923,082
Contractor Personnel	8,831,338	9,787,926	14,934,669	5,119,394	0	0	0	0	38,673,327
Training	0	187,504	2,437,552	374,981	0	0	0	0	3,000,037
Software	0	0	0	0	0	0	0	0	0
Hardware	28,614	3,066,881	3,891,354	4,588,985	4,525,564	4,496,950	1,458,683	634,210	22,691,241
Telecommunications	0	0	0	0	0	0	0	0	0
Facilities Prep	2,849,998	4,045,212	145,212	145,212	145,212	145,212	145,212	145,212	7,766,482
Conversion	0	46,875	1,312,500	1,875,000	0	0	0	0	3,234,375
Miscellaneous ADP Costs	566,452	566,452	599,180	291,062	0	0	0	0	2,023,146
Indirect Costs	590,860	590,860	611,544	316,240	0	0	0	0	2,109,504
Total ASSIST Costs	**14,451,354**	**19,979,886**	**25,679,283**	**13,614,416**	**4,670,776**	**4,642,162**	**1,603,895**	**779,422**	**85,421,194**
FNS Share $	5,423,449	7,498,251	9,637,178	5,109,354	1,752,896	1,742,156	601,926	292,508	**32,057,718**
FNS Share %	37.53	37.53	37.53	37.53	37.53	37.53	37.53	37.53	37.53

APPENDIX B

STATE OF MICHIGAN

ANALYSIS OF OPERATOR USER SATISFACTION SURVEYS

OVERVIEW

This appendix ordinarily presents the results of the Operator Level User Satisfaction Survey. Frequency counts of responses to all items on the survey are included, grouped by the topic covered by the item. The results for the items covering each topic are summarized as well.

The responses to the Managerial Level User Satisfaction Survey are the perceptions of eligibility workers in Michigan. In other words, these responses do not necessarily represent a "true" description of the situation in Michigan. For example, the results presented regarding the response time of the system reflect the eligibility workers' perceptions about that response time, not an objective measure of the actual speed of the response.

Description of the Sample

The survey was sent to 63 eligibility workers. The following table summarizes the potential population size and the final size of the sample who responded.

Number of EWs in Michigan	Number Selected to Receive Survey	Percentage Selected
3,688	30	0.8%
	Number Responding to Survey	Response Rate
	2	6.6%

The eligibility workers selected to receive the survey were selected randomly so their perceptions should be representative of the population of supervisors in Michigan. The response rate of 7 percent, however, is unacceptably low.

Summary of Findings

Since the number of surveys returned from the Michigan eligibility workers was too low on which to perform any sort of analysis, it was not possible to present the tables of responses and resultant analysis usually found in this appendix.

APPENDIX C

STATE OF MICHIGAN

ANALYSIS OF MANAGERIAL USER SATISFACTION SURVEYS

OVERVIEW

This appendix ordinarily presents the results of the Managerial Level User Satisfaction Survey. Frequency counts of responses to all items on the survey are included, grouped by the topic covered by the item. The results for the items covering each topic are summarized as well.

The responses to the Managerial Level User Satisfaction Survey are the perceptions of supervisors in Michigan. In other words, these responses do not necessarily represent a "true" description of the situation in Michigan. For example, the results presented regarding the response time of the system reflect the managers' perceptions about that response time, not an objective measure of the actual speed of the response.

Description of the Sample

The survey was sent to 30 local office supervisors. The following table summarizes the potential population size and the final size of the sample who responded.

Number of Supervisors in Michigan	Number Selected to Receive Survey	Percentage Selected
565	30	5.3%
	Number Responding to Survey	Response Rate
	2	6.6%

The supervisors selected to receive the survey were selected randomly so their perceptions should be representative of the population of supervisors in Michigan. The response rate of 7 percent, however, is unacceptably low.

Summary of Findings

Since the number of surveys returned from the Michigan supervisors was too low on which to perform any sort of analysis, it was not possible to present the tables of responses and resultant analysis usually found in this appendix.